# MYRMECIA

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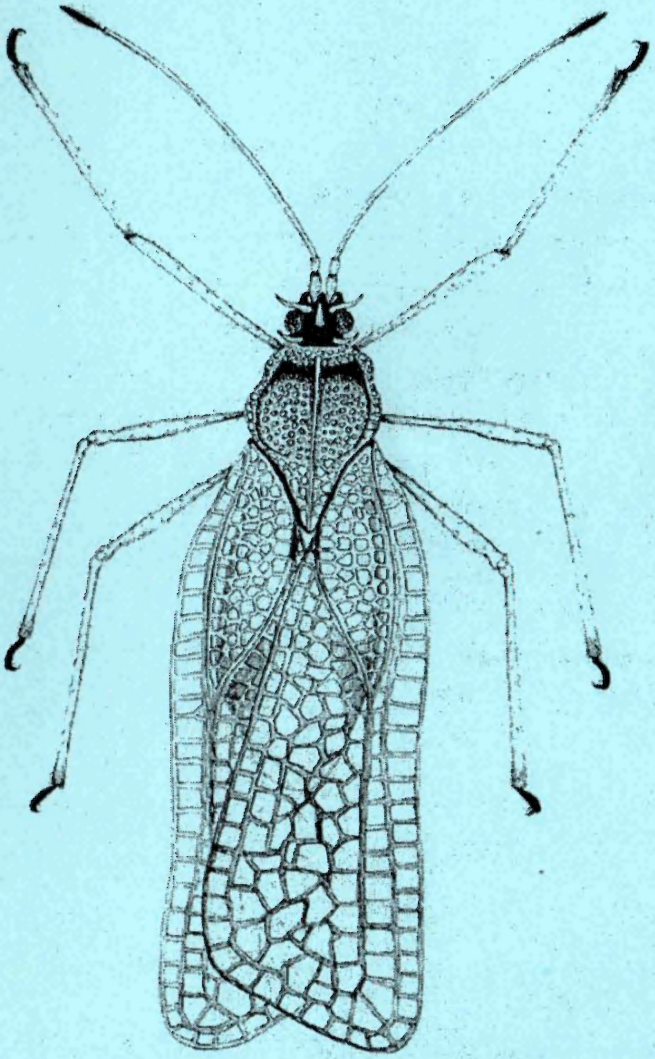

Front Cover: Image of *Radinacantha* sp by Melinda Moir.

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His Excellency,
Major General Michael Jeffery AC CVO MC,
Governor-General
of the Commonwealth of Australia

**SOCIETY SUSTAINING ASSOCIATES**
**Bugs for Bugs**

# MYRMECIA

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## NOTICE

Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society.

## EXECUTIVE REPORT

The Executive has met monthly, as usual, since the last Executive report in *Myrmecia*. There has been additional activity from the AES 2008 conference organising committee comprising **Murray Fletcher, Geoff Gurr, Emma Cottage, Peter Gillespie, Danuta Knihinicki, Holger Löcker** and **Aaron Simmons**. Orange is a good place for an entomological conference because there are three organisations involved in entomological research/development in the city – Charles Sturt University, NSW Dept of Primary Industries (Head Office as well as Orange Agricultural Institute) and Agrisearch Ltd. All three are represented on the organising committee. The conference website is up and running at *www.agric.nsw.gov.au\Hort\ascu\myrmecia\events.htm* and more details will be added as they are available. Sally Brown Conference Connections has again been contracted to provide the organisational support for the conference.

Only one application was received for the AES Research Grants and this was approved by the Executive. Congratulations to **Aaron Simmons** for an excellently presented application. It should be noted that any discussion of this application was undertaken by the Executive without Aaron being present.

Negotiations are continuing to establish the location for the next Executive of the Society which will take over from the Orange, NSW, Executive at the AGM in September 2008. Tasmania has expressed an interest at this stage although we have not yet received confirmation that they have been able to find sufficient numbers of members to fill the three positions on the Executive. If you have any contacts in Tasmania, feel free to encourage them to take on management of this society on your behalf.

The society's web address (*www.austentsoc.org.au*) has ceased to function and we are investigating why (no, it's not because we haven't been paying our bills!). In the meantime, you will need to use the long version at *www.agric.nsw.gov.au\Hort\ascu\myrmecia\myrmecia.htm*

Thank you to those members who have attended to payment of their 2007/08 subscription to the Australian Entomological Society. By the end of December, 370 of our nominal 500 members have paid and some have also paid arrears from a previous year. The Executive allowed some leeway in subs payment while we all got used to the change to the subscription year. The membership or subscription year now lines up with the Society's financial year, July to June.

Those approximately 130 members whose 2007/08 subs remain outstanding will have had a reminder from the Treasurer by the time you read this. If there is still no response to that reminder, Society benefits will be suspended.

November *Myrmecia* contained all of the reports presented to the 2007 AGM held at Beechworth, with one exception – the Audited Financial Reports. It is a requirement of the Society By-Laws that every member has access to the financial reports. Publishing them in *Myrmecia* is how the Executive usually achieves that. The Report has been submitted for this issue of *Myrmecia*. The Treasurer's report appeared in the November issue and you might want to refer to it to as you ponder the financial statements.

Prior to the 2007 AGM, the Executive received a submission from one of the Affiliated Societies pointing out the rather one-sided arrangement spelt out in Clauses 16 and 17 of the AES Constitution. Council resolved that fees for Affiliated Societies be reduced to match those of Student Members and Retired Members. This will take effect from the 2008/09 membership year.

Council also resolved to increase subscriptions from July this year. The increases are minimal and will be detailed in the May issue of *Myrmecia*. The increase now is intended to avoid a larger impost later as the effects of declining membership start to bite. One way to reduce future increases is for all members to actively recruit entomologists to be members of our Society.

Murray FLETCHER

Vice President

# *ANNUAL REPORTS*

Australian Entomological Society Inc

Independent Auditor's Report

To the members of the Australian Entomological Society Inc

We have audited the accompanying financial report of the Australian Entomological Society Inc, which comprises the balance sheet as at 30 June 2007, and the income and expenditure statement, notes to the financial statements and the statement by the Executive.

Council's Responsibility for the Financial Report

The society's Council is responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial report that is free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial report in order to design

audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the society, as well as evaluating the overall presentation of the financial report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Auditor's Opinion

In our opinion, the financial report of the Australian Entomological Society Inc presents a fair view, in accordance with Accounting Standards and other mandatory professional reporting requirements in Australia, the financial position of the Society as at 30 June 2007, and the results of its operations for the year then ended.

WHK Darcy Kennedy Audit Services

RK Winterton - Partner

18 September 2007

ORANGE NSW

Australian Entomological Society Incorporated

Income and Expenditure Statement for the year ended 30 June 2007

| | Note | This year | Last year |
|---|---|---|---|
| **Income** | | | |
| Membership and journal subscriptions | | 23,408 | 45,463 |
| Sale of publications | | 1,669 | 2,072 |
| Royalties from publications | | 19,044 | 15,950 |
| Conference surplus | | 9,287 | 13,330 |
| Sale of merchandise | | 1,871 | 3,986 |
| Interest received | | 6,432 | 7,174 |
| Sundry income | | 90 | 362 |
| | | 61,801 | 88,337 |
| **Expenditure** | | | |
| Audit and accountancy | 4 | 4,210 | 1,730 |
| Bank and merchant fees | | 795 | 1,652 |
| Consulting fees | | - | 2,500 |
| Cost of sales - merchandise | | 751 | 2,794 |
| Cost of sales - publications | | 670 | 1,180 |
| Donations | | 1,320 | 500 |
| Digitalise journal | | 15,134 | - |
| Executive expenses | | - | 541 |
| Journal - printing | | 40,677 | 41,612 |
| Printing postage and telephone | | 6,654 | 703 |
| Prizes and awards | | 811 | 1,732 |
| Subscriptions and memberships | | 2,546 | 2,378 |
| Sundry expenses | | 31 | 759 |
| Wash up - ICE 2004 | 3 | - | 11,725 |
| Write down of merchandise stock | 6 | 7,740 | 10,015 |
| | | 81,339 | 79,821 |
| **Surplus (Loss) for the year** | | (19,538) | 8,516 |

The accompanying notes form part of this financial report.

## Australian Entomological Society Incorporated

### Balance Sheet as at 30 June 2007

| | | This year | Last year |
|---|---|---|---|
| **Assets** | | | |
| Cash at bank | | 34,219 | 60,879 |
| Cash on hand | | 100 | 100 |
| Term deposit - unrestricted | | 40,368 | 38,689 |
| Term deposit - reserved funds | 8 | 88,243 | 79,690 |
| Receivables | 5 | 22,423 | 20,389 |
| Inventory | 6 | 5,710 | 14,871 |
| Prepayments - annual conference | | 5,000 | 5,000 |
| Total assets | | 196,063 | 219,618 |
| **Liabilities** | | | |
| Creditors and accruals | | 3,300 | 1,903 |
| GST payable | | - | - |
| Held in trust for others | | 1,291 | 6,705 |
| Subscriptions received in advance | | - | - |
| Total liabilities | | 4,591 | 8,608 |
| **Net assets** | | 191,472 | 211,010 |
| **Accumulated Funds** | | | |
| Retained surplus | 7 | 103,229 | 131,320 |
| Reserves | 8 | 88,243 | 79,690 |
| | | 191,472 | 211,010 |

The accompanying notes form part of this financial report.

Australian Entomological Society Incorporated

Notes to the financial statements for the year ended 30 June 2007

## 1 Entity information

The financial report covers Australian Entomological Society Inc as an individual entity. Australian Entomological Society Inc is an association incorporated in the ACT under the Associations Incorporation Act 1991.

## 2 Statement of accounting policies

This financial report is a special purpose financial report prepared for use by the committee and members of the society. The committee had determined that the society is not a reporting entity.

The financial report has been prepared in accordance with the requirements of the following Australian accounting standards:

AAS 5: Materiality
AAS 8: Events occurring after reporting date

No other Accounting Standards, Australian Accounting Interpretations or other authoritative pronouncements of the Australian Accounting Standards Board have been applied.

The financial report has been prepared on an accruals basis, unless stated otherwise, and is based on historic costs and does not take into account changing money values.

The following specific accounting policies, which are consistent with the previous period unless otherwise stated, have been adopted in the preparation of this financial report.

***Revenue***

Membership and journal subscriptions are recognised when received. Whilst the subscription year is a calendar year, no apportionment is made to treat half of the year's fees as prepaid at balance date. Overpaid subscriptions are treated as prepaid for the next financial year.

Sale of publications and merchandise is recognised when control of the goods passes to the purchaser.

Surplus from conferences, not conference revenues, is recognised as income once the conference has been held.

Interest and other income is recognised when received.

***Stock***

Stock of publications and merchandise for resale are valued at the lower of cost or net realisable value.

Australian Entomological Society Incorporated

Notes to the financial statements for the year ended 30 June 2007

## 3 Wash up for International Congress of Entomology 2004

| | |
|---|---|
| GST adjustment | (909) |
| Interest paid - ATO | 9,504 |
| Audit and accounting | 590 |
| Tax services | 2,540 |
| | 11,725 |

## 4 Audit and accounting

| | | |
|---|---|---|
| Estimate for year | 3,000 | 1,730 |
| Under (over) accrued for last year | 1,210 | 590 |
| | 4,210 | 2,320 |
| classification: | | |
| in ICE 2004 wash up (note 3) | - | 590 |
| in Income and Expenditure Statement | 4,210 | 1,730 |
| | 4,210 | 2,320 |

## 5 Receivables

| | | |
|---|---|---|
| Trade debtors | 50 | 2,278 |
| Royalties receivable | 20,948 | 17,545 |
| GST | 1,425 | 39 |
| Other receivable | - | 527 |
| Balance at end of year | 22,423 | 20,389 |

## 6 Inventory

| | | |
|---|---|---|
| At cost | | |
| Publications | 2,250 | 2,920 |
| Merchandise | 3,460 | 3,991 |
| At net realisable value | | |
| Merchandise | - | 7,960 |
| | 5,710 | 14,871 |

Some ICE 2004 merchandise has been written down to net realisable value. At 30 June 2007, this stock is expected to be donated to charity and so has given a net realisable value of $nil.

## 7 Retained surplus

| | | |
|---|---|---|
| Balance at start of year | 131,320 | 202,494 |
| Surplus (loss) for year | (19,538) | 8,516 |
| Transferred to reserves (note 8) | (8,553) | (79,690) |
| Balance at end of year | 103,229 | 131,320 |

Australian Entomological Society Incorporated

Notes to the financial statements for the year ended 30 June 2007

| | | | |
|---|---|---|---|
| 8 | **Reserves** | | |
| | Balance at start of year | 79,690 | - |
| | Transferred from retained surplus (note 7) | 8,553 | 79,690 |
| | Balance at end of year | 88,243 | 79,690 |
| | The reserves are for: | | |
| | Education Committee CASR initiative | 10,604 | 10,000 |
| | Small Research Grants project | 77,639 | 69,690 |
| | | 88,243 | 79,690 |
| (a) | Education Committee CASR initiative | | |
| | Balance at start of year | 10,000 | |
| | *Transfer comprised:* | | |
| | Interest received reinvested | 604 | |
| | Balance at end of year | 10,604 | |
| (b) | Small Research Grants project | | |
| | Balance at start of year | 69,690 | |
| | *Transfer comprised:* | | |
| | Interest received reinvested | 4,208 | |
| | Additional funds added | 3,741 | |
| | Balance at end of year | 77,639 | |

Statement by the Executive of the Australian Entomological Society Incorporated

In the opinion of the Executive members:

(a) the accompanying financial report gives a true and fair view of the income and expenditure of the association for the year ended 30 June 2007 and its assets and liabilities as at that date; and

(b) as at the date of this statement, subject to obtaining additional operating funds now being sought, there are reasonable grounds to believe that the association will be able to pay its debts as and when they fall due.

Signed in accordance with a resolution of the Executive made on 17 September 2007.

Murray Fletcher Graham Thwaite

# *PRESIDENT'S MESSAGE*

I recently attended a conference in Perth on short-range endemics (SRE's), jointly organised by Western Australian Government instrumentalities, a local university plus a local consulting company. It was evidently a popular topic, as there were about 300 attendees, with the majority coming from the environmental consulting industry.

SRE's are plants or animals which have extremely limited distributions and which often occupy a single location. In view of this, they are vulnerable to loss if a development such as a mine or a tourist development coincides with their distribution. Extinction of such organisms as a result of a development would not be an acceptable outcome under the Federal *Environmental and Biodiversity and Conservation Act*. Unfortunately, developments such as proposed minesites often do occur in areas where SRE's exist. This is particularly true if the area is in a geological formation that supports subterranean stygofauna or troglofauna that, as a result of their tendency to be unable to move across the landscape, are likely to speciate over extremely short distances. Recently, a number of troglobitic fauna that are unique to one mesa in the Pilbara, including a schizomid, have been the basis for delaying environmental approval of iron-ore mining worth around AUD$12 billion.

The conference addressed the types of organisms that tend to include short-range endemics, their biology, protocols for sampling them, and how developers might deal with the situation if they find these organisms in the area they wish to develop. It was clear that a lot of effort is going into surveying for SRE's as part of the environmental assessment process, and a growing band of consulting companies are developing expertise in carrying out the appropriate surveys.

Pleased as I am to see invertebrates being included in the environmental assessment process, this set me thinking. 99% of the species of animals on land are invertebrates; the remaining 1%, the vertebrates, are almost always considered during environmental assessments. Of the invertebrates, I would imagine that between 1-10% are SRE's. By their very nature, these are now often included in the assessment process. But what about the other 89-98% of the invertebrate species? While there are many encouraging moves to consider them, they are still more often than not omitted from the assessment process. I can't quite fathom this out. Some of the SRE's are relictual species that exist in low numbers, generally in specialised habitats. Animals such as stygofauna or troglobitic groups would have minimal impact on the functioning of the above-ground ecosystem. By contrast, many of the remaining 89-98% of the invertebrate species play crucial roles in the functioning of the ecosystem. Serious disturbances to their assemblages could lead to severe ecosystem disruption. Isn't it then somewhat hypocritical to devote so many resources to SRE's, while ignoring the bulk of the invertebrate species that exist in the same area? Maybe, with the passage of time, and better education of the public by entomologists, terrestrial invertebrates will routinely be considered during environmental assessment and management operations. I hope so.

Jonathan MAJER

# *REGIONAL NEWS*

## TASMANIA

### University of Tasmania:

### School of Agricultural Science and TIAR

A rare summer generation of autumn gum moths (*Mnesampela privata*) in Tasmania enabled **Geoff Allen** and **Paul Walker** to confirm the bioactivity of a second component in the female sex pheromone. This minor component appears to be essential for attracting males into traps particularly when moth populations are low. In January, Geoff and Paul assisted School of Agricultural Science student **Stephen Quarrel** in setting up a project to look at earwigs in apple orchards. European earwigs act as a beneficial insect in apple orchards by predating on woolly aphids but can be a pest in stone fruits, such as cherries, where they damage young fruit. Also in January, Geoff travelled to Tamworth to visit **Tanya Joffe** and **Robyn Gunning** (NSW DPI, Tamworth) to get an update on Tanya's progress on her PhD studies involving pyrethrum. **Lisa Bird** continued to be involved in various forestry entomology projects through the UTas and Forestry Tasmania.

### School of Geography and Environmental Studies

**Peter McQuillan** has just returned from a 3 week collecting trip to look at the insect fauna in bushland remnants around the Adelaide Plains. Unfortunately, the hot and dry conditions meant that there were very few insects to collect. In January, **Sarah Fayed** started her PhD with Peter to look at the pollination ecology of the Proteaceae.

About 40 farmers from 9 regions across southern Australia are gathering in Hobart in late January to discuss on-farm issues regarding biodiversity and remnant vegetation. Land and Water Australia through its ongoing Biodiversity in Grain & Graze project is the sponsor. Peter McQuillan and students have been responsible for sorting and interpreting the copious beetle, ant and spider data collected under 4 land use treatments on 47 farms. There is the usual regionality in the fauna but noteworthy is the ubiquitous occurrence of the carabid genera *Mecyclothorax, Scopodes* and *Cenogmus* in pastures.

Several of the States entomologists, including **Peter McQuillan, Geoff Allen, Cathy Young, Dick Bashford, David de Little and Paul Walker** went to the launch of **Elizabeth Daley**'s new book 'Wings – an introduction to Tasmania's winged insects' held at the Tasmanian Museum and Art Gallery in Hobart. Peter wrote the Foreword to the book which features over 600 photographs by Elizabeth and Anthony Daley of around 350 insect species in their natural habitats. The book was officially launched by Andy Muirhead, from the ABC's 'Collectors' show, who told amusing anecdotes of being in the field with some of the aforementioned entomologists. For more details about the book see: http://www.riffles.com.au/.

### Forestry Tasmania

**Jane Elek** and **Geoff Allen** (UTas) report that work is continuing on assessing the efficacy of imadicloprid for creating lethal trap trees to protect *Eucalyptus nitens* plantations against

chrysomelids. This summer, student **Lachlan Wilson** will be testing whether treated foliage has any repellency towards feeding beetles. **Lisa Bird** and **Vin Patel** will also be examining the relationship between levels of insecticide in leaves, as determined by chemical analysis, and the results from bioassays where beetles were fed on treated leaves. **Simon Grove** and his students are currently preparing papers and posters for the 'Old Forests, New Management' conference which is being hosted by the CRC for Forestry, Forestry Tasmania and the International Union of Forest Research Organisations in Hobart on 17-21 February 2008. For more details on the conference see: http://www.crcforestry.com.au/. **Dick Bashford** has been working with Quarantine Tasmania to set up a new ant surveillance programme in all major urban areas of the State to monitor for the presence of exotic species. A successful pilot study was completed last year and this will be the first operational run. Dick is also about to start this years *Sirex* woodwasp monitoring programme which involves placing pheromone traps in susceptible plantations around Tasmania.

**Department of Primary Industries and Water**

In early December, a PaDIL (Pests and Diseases Image Library http://www.padil.gov.au) workshop was held at the DPIW New Town laboratories. The workshop was attended by **Lionel Hill, Cathy Young, Paul Walker** (UTas) and several other DPIW and Forestry Tasmania personnel involved in pest and disease management. **Ken Walker** (Museum Victoria) and **Amanda Carmicheal** (Queensland University of Technology) gave an excellent overview of the image library as well as methods for acquiring and post-processing high quality images.

Paul WALKER

**SOUTH AUSTRALIA**

**The University of Adelaide, School of Agriculture, Food and Wine**

At **Mike Keller**'s lab, **Susanne Casanova** completed her Honours project on the "Predatory behaviour of the Pacific damselbug, *Nabis kinbergii*". **Nguyen Huu Quang** has submitted his Masters thesis entitled "Circadian rhythms and effects of different diets on the development and reproduction of *Nabis kinbergii* (Hemiptera: Nabidae)" (co-supervised by **John Jennings**).

**Craig Feutrill** has commenced his PhD research on currant-lettuce aphid (co-supervised by **Jianhua Mo** and **Sandra McDougall** (NSW DPI)). Craig is funded by the CRC for National Plant Biosecurity. Mike has received funds to support a PhD student to study predators of brassica pests as part of a national project led by **Cate Paull** (SARDI) and funded by Horticulture Australia Ltd. Furthermore, three other projects are in full swing: research on intraguild predation (**Coca Lankin Vega**, PhD student), blue-banded bees as greenhouse pollinators of tomatoes (**Katja Hogendoorn**, postdoc), and identification of brassica pests in the guts of insect predators (**Anita Juen**, postdoc).

**Sonja Scheffer**, USDA, visited **Kerrie Davies** and **Gary Taylor** in November to talk *Fergusobia/ Fergusonina* associations. While here, she and the family took time to spend a few days on Kangaroo Island [before the fires!!].

**The University of Adelaide, School of Earth & Environmental Sciences**

We are saddened to hear of the death of Miss **Helen Brookes** (3 Nov 1917 - 1 Jan 2008). Helen began at the Waite Institute in 1936 as a laboratory assistant in the Entomology Department. In

1943 she became a technical assistant, in 1957 she appointed Assistant Systemic Entomologist, and from 1964 to 1975, she was Systemic Entomologist and Lecturer. Helen was also curator of the Duncan Swan Insect Collection (now Waite Insect and Nematode Collection) from 1964 until her retirement in 1982. She was a member of the Royal Society of South Australia and a founding member of the Australian Entomological Society. [An obituary will appear in the next issue of Myrmecia.]

**Andy Austin**, **Steve Cooper** and **John Jennings**, along with **Kym Abrams** (Hons. student), **Adam Allford** (PhD student), **Michelle Guzic** (Postdoc), **Lars Krogmann** (Humboldt Fellow), and **Gary Taylor** (Postdoc), attended the combined 8th Invertebrate Biodiversity and Conservation / Society of Australian Systematic Biologists Conference in Brisbane. Lars and John spent time sorting material in the Queensland Museum and then a few days collecting pompilid and evanioid wasps in the Glass House Mountains region.

**Mick Day**, British Museum of Natural History, London, spent all of November in Adelaide working on pompilids with **Lars Krogmann** and **Andy Austin**.

**Sally Thompson** (PhD student) spent some time with **Norm Johnson** at the Charles Triplehorn Collection at Ohio State University. Here she met up with **Lubomir Masner** (Canadian National Insect Collection) and had a crash course on scelionid wasps. Later she visited **John Heraty**'s lab at the University of California at Riverside. Sally and **Andy Austin** then attended the Entomological Society of America conference, San Diego, California.

**Alejandro Valerio** has arrived in Adelaide to work with **Andy Austin** on the PBI Platygastroidea project funded by NSF [more in next issue!].

**John Jennings**, chair of CHAEC, attended the recent AGM of CHAFC in Adelaide. The Council of Heads of Australian Entomological Collections (CHAEC) is now officially represented at the Council of Heads of Australian Faunal Collections (CHAFC).

Congratulations to the following:

- **Claire Stephens** and Jason Bobbin on the birth of Amelia Rose.
- **Kym Abrams**, Honours 2007, on gaining an ABRS scholarship.
- **Lars Krogmann** on his impending marriage to Yin Liu.

**Lars Krogmann** on his new position of curator of Hymenoptera at the Staatliches Museum für Naturkunde, Stuttgart, Germany.

***SA Museum***

**Robert Lavigne**, Honorary Research Associate, spent the last three weeks in November in WA. During the first part of the visit he worked with **Terry Houston** identifying, reorganizing and updating the asilid collection at the WA Museum. He spent the latter part of the visit working with **Andy Szito** identifying, reorganizing and updating the asilid collection at the WA Department of Agriculture. A listing of the species present in each collection has been prepared and has been placed on the robber fly web site: http://www.geller-grimm.de/asilidae.htm.

***SARDI (Entomology)***

**Jo Kent** is currently working for **Richard Glatz** on a project developing a cell-free invertebrate GPCR bioassay. Jo presented some of their work at the recent Entomological Society of America conference.

***Unattached***

**Peter Allen** is currently staying with family in Copenhagen and visited Prof. **Peter Esbjerg**, Institute for Ecology, Copenhagen University. Both have much in common with an interest in applying sound ecological principles to developing insect pest management strategies. Prof Esbjerg has studied mainly aphids, the major pest of Danish agriculture, and has spent many years developing a predictive system for outbreaks of a species of cutworm.

John JENNINGS

**AUSTRALIAN CAPITAL TERRITORY**

**Dept of Agriculture Fisheries and Forestry: Office of the Chief Plant Protection Officer (OCPPO), Canberra**

Ian Naumann is finalising funding arrangements for a forest health surveillance project in Vietnam. The 2-year project will be a collaborative venture between OCPPO, the Forest Health Group of the Queensland Department of Primary Industries and Fisheries, Brisbane (led by Simon Lawson), and the Forest Science Insitute of Vietnam, Hanoi.

Zamir Hossain, formerly of the University of Western Sydney, has joined the OCPPO team, to manage a series of capacity building projects with plant health scientists in Thailand, the Philippines and Indonesia. One of Zamir's immediate tasks is the drafting of a manual for a plant health risk mitigation workshop in Thailand later this year.

Wendy Lee has also joined the team as Coordinator of the SPS Capacity Building Program. Many readers will know Wendy from either her CSIRO days in the Australian National Insect Collection or from her stints in the Department in Biosecurity Australia and AQIS. Wendy and Ian will continue to organise a program of plant health training workshops in South East Asia druing 2008.

**ANIC**

The thrips room at ANIC has been quietly busy over the past three months, as Laurence Mound prepared over 1000 photomicrographs for a LucID system for the Thysanoptera fauna of California, together with fact sheets on 260 species from that State. Australian thrips work during this period focussed on establishing the identity of a few more of the species described by Girault before 1930, but which are known only from four-line "descriptions" and crushed specimens on slides. This involved a visit to the Queensland Museum, and studies at QDPI with Desley Tree, who continues to find new and remarkable thrips around Brisbane. Three days collecting on Kangaroo Island provided some rest (and a few thrips), but Christmas on Lord Howe Island looking for thrips and caddis flies with Alice Wells was more productive. As a result of publications issued during 2007 the number of thrips species known from Australia is now comfortably over 700.

David Yeates attended the National Taxonomy Forum at the Australian Museum in Sydney on 4-5 October, representing the Society of Australian Systematic Biologists (SASB). He also attended a one-day Australian Greenhouse Office (AGO) Climate Change workshop and a meeting of the Commonwealth Environmental Research Facilities Hubs and Significant Projects in November. David travelled to North Carolina (USA) in mid November for a meeting of principal investigators on the Diptera Assembling the Tree of Life project. In early December David attended the 8th Invertebrate Biodiversity and Conservation Conference in Brisbane, organising a symposium on international collaborations. In October, David and McMaster Fellow Sonja Scheffer spent a week in Tasmania collecting fergusoninid flies from snow gums. David and Sonja have two CSIRO summer students, Daniella Carnovale studying the Tabanidae of the Australian alps, and Adam Cardilini studying the fergusoninid flies of the alps.

The Lepidoptera group is rather depleted at the moment. Andreas Zwick completed his PhD project on the taxonomy and phylogeny of Anthelidae and has moved on to a postdoctoral position in USA with the Lepidoptera Tree of Life project. We also said farewell to Vanna Rangsi, who retired after working on Lepidoptera in CSIRO for more than 30 years. We wish Andreas and Vanna the best of everything in the next phase of their lives. Michelle Glover has taken on some the technical work on Lepidoptera that was previously done by Vanna, in addition to her role as identification officer. The search for the adult of our mysterious Kin Kin larva had a rather unwelcome outcome, as it turned out to be a sawfly instead of the expected early Lepidoptera lineage. The larval head capsule with characters we now know to be parallelisms to lepidopteran traits deceived us all, including overseas colleagues, and whilst after two years of hard work we successfully produced the adult, this was clearly not the result we had hoped for.

Recent visitors included Peter Zwick (Coleoptera: Scirtidae), John Lawrence (Coleoptera Tree of Life), Paul Zborowski (photography of Coleoptera), Helen Smith of the Australian Museum (sorting spiders), Derek Smith of the Australian Museum (identifying ants), Lauri Kaila and Marko Mutanen of Finland (extracting Lepidoptera larvae for the Lepidoptera Tree of Life project), Milan Janda from the Czech Academy of Sciences, collecting data from ANIC for his ecological work on ants in Papua New Guinea, and Orlando Calcetes from the Philippines for LucID training with Tom Weir and Nicole Fisher.

We said thank you to our loyal team of volunteers at a relaxing barbecue in November. ANIC volunteers have now done over 50,000 hours of outstanding work in helping us maintain the curatorial standard of the collection. Natalie Banks and Glen Cocking were presented with certificates thanking them for their long term commitment as volunteers. We congratulate Fiona Spier on the birth of her baby in November. Fiona's work on producing on-line keys to insect orders and families is being continued by Dena Paris, who originally started with us as a volunteer.

The remote diagnostics project has continued to develop under the guidance of Darren Peck. The technology has proved its usefulness in the identification of numerous groups of organisms, including mites, midges and nematodes. The hub at the AQIS laboratory in Perth is proving to be extremely useful to AQIS Entomologists and Plant Pathologists. Installation of the equipment at other AQIS laboratories is being assessed according to need.

Stephen Cameron has accepted the role of CSIRO Entomology representative on the Australian barcoding committee. This group will coordinate Australian DNA barcoding research projects and implement the Australian contribution to the international barcoding program, which aims to collect DNA sequence data from as many organisms as possible world-wide.

Our two new positions have now been filled. Donald Hobern from GBIF in Copenhagen has been appointed as Director of the Atlas of Living Australia project, and Simon Ferrier has transferred from NSW Department of Environment and Conservation to a new position CSIRO Entomology on the application of biodiversity information to natural resource management. Other new faces in ANIC include volunteer Robert Tompsett (Coleoptera) and summer student Janine Guy (nematodes). Natalie Banks has accepted a position as technician helping Rolf Oberprieler with work on volume 4 of *Australian Weevils*. Steve Shattuck will be a participant in a new NSF-funded project to revise the worldwide fauna of ants in the genus *Paratrechina*, with two collaborators in the USA.

Bruce Halliday did the trek to Adelaide to return some large loans of Lepidoptera and Coleoptera to the South Australian Museum, and to retrieve a substantial collection of ticks for return to Canberra, including the very important F. H. S. Roberts collection, as well as some more recent tick collections. The ANIC collections have also increased as a result of some recent donations. We received a donation from Donald Horning, comprising mostly Coleoptera and Hymenoptera collected in NSW. Maria Polak donated specimens from a variety of localities in Australia, Asia, Europe and South America. They were mainly Coleoptera (beetles), with some Diptera (flies), Hemiptera (bugs) and Hymenoptera (wasps). As always, we are sincerely grateful to these people for their generosity.

Bruce HALLIDAY

**CSIRO Forest Biosciences**

Trudi Wharton has taken over from Martin Steinbauer as ACT regional coordinator. Trudi is back at CSIRO FB (formerly Ensis) working with Darren Kriticos on a Dymex model of her favourite insect *Essigella californica*.

Sylvain Guichard, is working on his PhD, Painted Apple Moth, *Teia anartoides*. Sylain is looking at modelling the spread of the moth at a fine scale to narrow the search for the local population source. Sylain is the pHD student of Darren Kriticos , Sue Worner from Lincoln University NZ and John Kean at AgReaserch NZ under the Better Border Biossecurity collaboration.

**ANU, School of Botany and Zoology**

Kim Kingston graduated in December 2007 with her PhD on digestive physiology of phylloxera. Her thesis was entitled Digestive and feeding physiology of grape phylloxera, *Dakutulosphaira vitifoliae* Fitch. Also James Woodman's thesis was accepted in December2007, Gas exchange and evaporative water loss in terrestrial arthropods: patterns, regulation and ecological implications. Congratulations to both Kim and James.

Wahida Othman from Malaysia is working on her research topic of "Control of salivary gland secretions in the cricket and yellow-winged grasshopper." Eileen Tuite is working with Theo Evans(CSIRO) and Paul Cooper (ANU) as an Honours student, investigating the water requirements of the Coptotermes colonies. Paul Cooper attended the Entomological Society of America meeting in San Diego 9-12 Dec.2007

**Australian Plague Locust Commission**

Staff at the APLC have not conducted any locust control this locust season and, on current information about populations within the organisation's area of operation, are not expecting to during the remainder of January 2008 (if at all during the remainder of the season).

Because no locust control has been required, locust surveys by Field Officers have been more intensive this season than would otherwise be. An ARC Linkage Projects collaboration with Dr Alistair Drake at UNSW@ADFA concludes this year but plans are underway to apply for further funds to extend the work already undertaken but with a focus on increasing the certainty with which radar echoes can be attributed to locusts as well as to the use of a mobile radar to record migration of newly fledged adults from natal habitats.

Another ARC Linkage Projects collaboration with Prof Steve Simpson, Drs Marie Chapuis, Fiona Clissold and Greg Sword at the University of Sydney is only half way through yet a significant finding has already been made. Thanks to field observations combined with laboratory bioassays of the responses of Australian plague locust (hereafter APL) nymphs to conspecifics, the project has shown that the species exhibits pronounced gregarisation behaviours once a critical density threshold has been exceeded. These findings have finally put to rest the debate concerning the degree of similarity of APL to other gregarising species that has been ongoing within the APLC since its inception in 1974 and would still be ongoing were it not for this project.

Thanks to their expertise and approach, the USyd staff were not hung-up on the significance of the presence/absence of phase-related polyphenism in APL (as have been APLC staff) and simply focussed on the behaviours shown by the nymphs when crowded by other of their own kind. It is to be hoped that this finding may gave APLC staff more reason to focus on quantifying the density of reported egg-beds and tracking egg survival so that the likelihood of the later formation of hopper bands can be guesstimated with at least some empirical credibility.

Fipronil-impact studies by Dr Steinbauer indicate that this insecticide seriously affects populations of mound-building termite and meat ants and, as a consequence, has caused the Commissioners of the APLC to begin making plans to phase-out its use by the APLC for locust control. After almost 3.5 years, Martin (Entomologist), will leave the APLC in March 2008.

Dr Steinbauer has been awarded a Charles La Trobe Research Fellowship to study the responses of psyllids to primary and secondary metabolites in the leaves of mallee eucalypts. He will join the La Trobe University section of the Mallee Fire & Biodiversity Project team which is managed by Assoc Prof Mike Clarke. This move will mean a welcome return for Martin to the study of the chemical ecology of insect-eucalypt interactions. However, Martin and Alistair have plans to continue their collaboration and develop a new type of Insect Monitoring Radar, one which is hoped to be able to track non-migratory insects endemic to forests and woodlands, i.e. insects that do not commonly traverse large distances at high altitudes (i.e. < 200 m)."

## VICTORIA

### Department of Primary Industries, Vic

During 19 September - 6 October 2007 Mali Malipatil from DPI, Knoxfield, visited South America. Main purpose was to attend the annual meeting of the IPPC Technical Panel on Diagnostic Protocols (TPDP) in Buenos Aires, Argentina. Mali was selected to be on TPDP as a discipline lead to cover quality assurance issues with particular reference to entomology and acarology, and the only member from Australia. The meeting covered discussions on clarifying and resolving various issues relating to diagnostic protocols at international scene, these included criteria for prioritization and priorities for new protocols, QA issues, accreditation of laboratories, diagnostic protocol development issues relating to specific protocols that are in the process and /

or being proposed for development, update of authors and editorial board information including review of new nominations and publication issues (e.g. policy on photographs, pictorial keys). The issues of accreditation and networking of diagnostic laboratories that were introduced and discussed by international panel members at this meeting are of considerable relevance and interest to Subcommittee on Plant Health Diagnostic Standards which in the long term aims to establish, implement and monitor professional and technical standards within Australia's plant health diagnostic laboratories through the development and maintenance of an accreditation system, and national diagnostic standards for emergency plant pests. He was given lead responsibility for some diagnostic protocols that are currently under preparation as well as those being considered for preparation in future years. Each of these DP is being (or will be) prepared by a 3 or 4 member team of international specialist editors / authors appointed by the IPPC TPDP.

While in Buenos Aires Mali met up with the curator Dr Diego L. Carpintero of Museo Argentino de Ciencias Naturales in Buenos Aires discussing issues of taxonomy of several heteropteran groups. On the way to the meeting he stopped over in Santiago (Chile) to visit Museo Nacional de Historia Natural to examine the collections in Secciou Entomologia under the care of the curator Dr Mario Elgueta. The specimens examined included a number of heteropteran bug groups (Lygaeidae, Reduviidae, etc). After TPDP meeting he proceeded to Brazil to visit Museu Nacional Universidade Federal do Rio de Janeiro which houses one of the world's largest mirid collections notably of the late Dr Jose Carvalho who visited Australia and worked on several Australian groups. Mali spent considerable amount of time examining some type specimens particularly of *Creontiades, Campylomma* and others taxonomic reviews of which he has conducted recently. Unfortunately there was no time available for any field work that he would have much liked to undertake.

DPI Tatura entomologist Dr. Alex Il'ichev attended the 4-th Asia-Pacific Congress on Chemical Ecology in Tsukuba, Japan. Alex is a Councillor from Australia at the Asia-Pacific Association of Chemical Ecologists (APACE) and at this meeting he was appointed as APACE treasurer. He also delivered the invited Keynote Speech: "Application of pheromones in an area-wide IPM programs" for the Congress and presented a paper at the section: "Practical uses of pheromones". After Japan, Alex travelled to USA to meet with colleagues at Michigan State University (MSU) to discuss results of the field trials and future research collaboration under a new project: "Towards sustainable pheromone-based IPM in orchards". While in MSU, Alex (as an Adjunct Professor at MSU) discussed the arrangements for joint supervision (Prof. Larry Gut, Prof. James Miller and A.Prof. Alex Il'ichev) of future PhD student (Mr. Michael Reinke) who will soon visit DPI Tatura and will conduct counter seasonal field trials in MSU and DPI Tatura. After USA, Alex visited the electrophysiology laboratory of Prof. Hanna Mustaparta at Norwegian University of Science and Technology in Trondheim, and learned first hand about the new single-cell recording technique. DPI Tatura has the modern equipment for single receptor cell recording and now will have the experience to use it on antennae of small insects. On the way back to Australia, Alex attended the 16-th International Plant Protection Congress in Glasgow, UK with invited presentation at the session 8B: "Semiochemicals in Practice".

**Department of Genetics and CESAR, Melbourne University**

From September 2007 to January 2008, Isabelle Proulx, a Ph.D. student from INRS-ETE, Université du Quebec, is completing a unit of her studies in a project with Melissa Carew and Jon Martin. Isabelle research in Canada involves studying differences in rates of heavy metal uptake in different species of *Chironomus* in contaminated habitats. In order to do this successfully, she must be confident that she is not combining morphologically similar species. This is a major problem in working with *Chironomus* larvae, and the molecular and cytological techniques used here in Melbourne will provide the accuracy of identification required. It is not all work for Isabelle, who has taken the opportunity to visit Western Australia during the Christmas break.

**Museum Victoria**

The Entomology registration staff entered 37,000 specimens onto our EMu database in 2007 including 16,600 Buprestidae, 6,700 Staphylinoidea, 2,300 Hydrophiloidea, 2,000 Lucanidae, 1,100 Lycosidae and 500 types. We also uploaded 6,200 Lepidoptera records from the Ross Field Butterfly Collection. This brings the total size of the MV Ento/Arach database to 312,000 registered objects. Our registering will slow down for a while as our longest serving Registration Officer, Rachel McBride, has gone on maternity leave leaving Kristy Hoath to plug away on her own.

Lucinda Gibson has completed taking high resolution images of 1,200 of our primary types and plans to equal that number in 2008. These images will eventually be available on the web. Meanwhile our database records have recently gone live and are available through the Museum's revamped website. You can now interrogate 289,000 records from our collection at http://collections.museumvictoria.com.au/search.php . The initial search interface is quite primitive but we hope to improve upon it during 2008. We would welcome feed back from anyone who has used the site.

The end of the year saw visits from Martin Baehr, a Carabid specialist from Munich, Graham Brown (Tiphiidae) from NT, as well as a few arachnologists such as Volker Framenau from the Western Australian Museum and Graham Milledge and Helen Smith from the Australian Museum. Not to be out done, Ken Walker and Amy Carmichael (Queensland Unversity of Technology) visited almost every State and Territory in the country and even flew across the Tasman to New Zealand as part of a six week whirlwind tour to deliver seminars and workshops on the biosecurity PADIL website (http://www.padil.gov.au/).

Richard Marchant and Peter Lillywhite are in their fifth year sampling populations of *Tasimia palpata* in the Cumberland River down at Lorne and have perfected a hand held underwater vacuum cleaner like device using a small bailing pump to extract the critters from the rocky substrate. Catriona McPhee and Simon Hinkley continue to field public enquiries on White-tailed spiders and non-existent creatures that are "burrowing under my skin at night".

Amanda KOBELT

**Entomological Society of Victoria**

A year in the life of the Entomological Society of Victoria is fairly predictable: six bimonthly meetings, at least one of which will be a members' night and another an excursion to a collection; six issues of the *Victorian Entomologist*; a call for nominations for the Le Souëf Award; and funding of a bursary for the Science Talent Search, organised by the Science Teachers' Association of Victoria.

Sarah Oldfield, from Presbyterian Ladies College, was the recipient of a Science Talent Search bursary for her science photography project "All About Ants". Our excursion for 2007 was behind the scenes at the Melbourne Zoo Butterfly House, hosted by Patrick Honan. We heard of the observational experiments to determine when the butterflies were most active and other behavioural patterns. Then we visited the breeding enclosures to see hundreds of caterpillars devouring their food plants and heard of the insect pests and predators that make life hard for the staff. This was summed up as "frass happens". Finally we were told of the Lord Howe Island Phasmid's rediscovery and captive breeding program and saw the resulting progeny.

One of the objectives of the Society is to compile a comprehensive list of all Victorian species. Some years ago considerable work was done on butterflies and Buprestid beetles but the activity has lapsed in more recent times. The moth specialists of the Society, and friends, have commenced the compilation of a checklist for all Victorian Lepidoptera. It will be based on published literature and the collections of the Melbourne Museum and ANIC, and will be promulgated through an internet host. Links will be provided to photographs of living and set specimens, many of which have been taken by our own members, particularly Peter Marriott. Hepialidae, Glyphipterigidae, Hypertrophidae and Adelidae will be amongst the first to be uploaded. If readers would like to contribute by drafting the checklist for a particular family, or contributing records of Victorian collections, they are urged to contact Peter Mariott at marriott@netlink.com.au

Lots of insect information such as identification guides and distribution records are now being published on the internet. The Council is concerned that quality, ongoing maintenance and future availability are issues that have received little attention. We propose to hold a forum of interested parties later in the year to consider the publication and storing of scientific records and the sharing of data.

Ian ENDERSBY

**QUEENSLAND - SOUTH EAST**

**Army Malaria Institute (AMI).**

**Bob Cooper** spent 5 weeks during September-October in Vietnam conducting entomological surveys to study malaria transmission in two communes in central and South Vietnam.

**Steve Frances** and **Donna MacKenzie** have been busy in the lab developing a rodent/malaria model using our colony of *Anopheles farauti*. In October, Steve attended an impromptu meeting at the Brisbane City Council to discuss potential control measures for the biting midge, *Culicoides ornatus*, which was causing concern for residents in some of the affluent suburbs in Brisbane. In November, Steve and Bob ran the Vector Bourne Disease Surveillance and Control course for Australian and New Zealand preventive medicine technicians.

**Jerry Hogsette**, from the Center for Medical, Veterinary and Agricultural Entomology, Gainesville, Florida, and colleague **Rudolf Urech**, from the DPI, Yeerongpilly, visited to discuss evaluation of commercial flytraps.

Steve FRANCES

**Mosquito Control laboratory, QIMR**

**Peter Ryan**, **Michelle Gatton**, **Jason Jeffery** and **Leon Hugo** attended the 56th meeting of the American Society of Tropical Medicine and Hygiene, Philadelphia, USA, in November. Peter presented an invited symposium on Ross River Virus Early Detection and Surveillance (RREDS) system. RREDS is an innovative web-based system developed by Peter and Michelle that compares current Qld Health Ross River virus disease incidence data with historical trends at the local government scale and provides timely warnings of outbreaks. Jason presented a joint paper with PhD students **Hau Tran** and **Le Anh Nguyen**, and Masters of Population Health student **Hoang Le Nguyen** reporting on a collaborative project assessing the impact of water storage practices on dengue transmission risk in southern Vietnam. Hau and Le Anh are currently continuing their field placements in Vietnam. Leon presented a joint paper between the Mosquito Control Laboratory and O'Neill laboratory, University of Queensland, on the development of a molecular method for predicting the age of individuals of the dengue vector *Aedes aegypti*. Leon is evaluating environmental impacts on the method and its application to other mosquito vectors.

**Brian Kay** was awarded a National Health and Medical Research Council Program grant (Co-CI with **Scott O'Neill**, School of Integrative Biology, UQ) to build on the success of the Grand Challenges in Global Health project evaluating the capacity of virulent *Wolbachia* bacteria for life-span reduction of *Aedes aegypti*. Themes of the new grant will include establishing *Wolbachia* infections in other mosquito vectors, investigating behavioural effects of *Wolbachia* transmission on the insect hosts, developing proteomic methods for age grading mosquitoes and establishing a RREDS-like system for dengue transmission in Vietnam.

**Tessa Knox** graduated with a PhD from the School of Population Health, University of Queensland on 14th December 2007. Tessa's thesis was titled "Optimising surveillance of immature *Aedes aegypti* in Vietnam". Tessa's research is providing a framework for the current quantitative assessments of abundance of *Aedes aegypti* immatures in Vietnam. Tessa will return to California where she is based at the laboratory of Prof. Tom Scott, University of California Davis, as part of the Innovative Vector Control Consortium.

**Tim Hurst** continues to work closely with local governments throughout south east Queensland and recently received additional funding from the Mosquito and Arbovirus Research Committee to work on two projects. One is aimed at determining the relationships between water usage and storage and mosquito abundance in south east Queensland, the other evaluating contemporary mosquito control methodologies

Leon HUGO

**QUEENSLAND – FAR NORTH**

**Centre for Tropical Agriculture – Mareeba (Ross Storey)**

**Max Moulds** is off to Argentina for a few weeks. You would think that this would make the local cicada population a bit safer. Unfortunately for them **Lindsey Popple, David Emery** and **Anne-Marie McKinnon** have arrived with all the north's interesting cicada fauna in their sights. They visited **Ross Storey** to show off their captures – and also **AQIS NAQS** for a bit of gossip.

**Kip Will** from the Essig Museum of Entomology at the University of California has arrived for field work pursuing the carabid genus *Loxandrus*. After driving to Normanton on the Gulf he returned to the Atherton Tableland visiting **Barry Moore** at Julatten. This was followed by some 'indoor collecting' at the QDPI Insect Collection in Mareeba. He then caught up with **Geoff Monteith** in Cairns for a drive to Brisbane (lots of collecting on the way). Geoff also spent time on the Torres Strait islands whilst in the north.

**Dave Rentz** of Kuranda has set up an north Queensland entomology blog at http://www.bunyipco.blogspot.com/ Check it out for lots of interesting information and photos of local insect fauna. Here is an extract from one of the most recent blogs:

Night Robbers by Dave Rentz

Robber Flies (family Asilidae) are well known to all entomologists. More than 7000 species are known from almost all continents and habitats. They are very distinctive in gestalt and range in size from 5 mm or so to some real giants at over 40 mm. Many mimic other insects are frequently found on flowers where they ambush unsuspecting prey. They are hairy and have long, strong legs suitable for catching and holding prey. Their large eyes and the concave groove between them serve to distinguish the family from others that look similar.

There are a number of websites that deal with Robber Flies with many providing excellent photos.

For a couple of years I have encountered Robber Flies at night while wandering around the rainforest. At time they were with prey. I wondered if they were nocturnal but thought they might just be stirred into action by the light of my torch or, perhaps, by moonlight. But on the night of 12 December 2007 while walking around Lake Barrine, north Queensland with Darryl Gwynne, multiple encounters with robber flies with prey were observed. We were deep within the forest and the moon was in its crescent phase, so there was virtually no ambient light.

Consultation with several Robber Fly aficionados suggests that nocturnal behaviour is unknown in this group. In fact, Wood (1981) suggests that they are seldom found deep in the woods and are active in bright sunlight. Sure, some are always attracted to lights at night. The lights are assumed to "wake" resting flies in the immediate vicinity and attract them. But this could not have been the explanation on the night we made our observations. Of the dozen or so sightings, all had captured nocturnal insects further suggesting they were on the prowl in the dark.

Once the species illustrated is identified, I'll add that to the blog as well as any future observations.

Left: Asilid with scarab beetle prey at night.

**AQIS NAQS – Cairns (Tony Postle)**

Field surveys proposed for January have been hampered by unfavourable weather. However, as a reminder of what awaits in the field when the clouds rise, NAQS entomologists **Luke Halling** from Broome, **Glenn Bellis, Stacey Anderson** and **Heather Wallace** from Darwin, **Anthony Rice** and **Sally Cowan** from Mareeba, **James Walker, Michael Gorton** and **Tony Postle** from Cairns and blow-in **Martin Shivas** from Brisbane were treated to a taste of 'real entomology' at a termite identification workshop held in Mareeba last November. In an age where DNA dominates, the participants, under the auspices of **Bob Eldridge** from NSW Forestry, were actually able to view whole specimens and differentiate them utilising keys based on morphological differences, without having to dismember, pulverise, blend, dissolve and fix the - what was it? - before subjecting it to statistical analysis for an ID. Attendees could still see what the termites were at the end of the identification process. Bliss! A one-day Orthoptera-identification workshop, provided by **David Rentz** the following day at the same venue, provided the icing on the cake.

**Postgraduate Corral number 36, JCU – Cairns**

The **Sugar Research Development Corporation** is funding a Presentation and Media Skills Workshop for all their Postgraduate Scholarship holders, to be held in Condong, NSW in late February. The purpose of the workshop is for SRDC Scholarship holders to understand how to structure and deliver an effective poster talk to meet both audience needs and presenter objectives, to develop communication skills and the confidence to network and present to industry audiences, and to apply principles of message-design to effective client-liaisons, including media liaison.

The workshop will also provide students with an excellent networking opportunity, not only to catch up with other SRDC Scholarship holders, but also to interact with sugar industry people, including the NSW Sugarcane industry members, SRDC Board and staff. This is the second of this series of workshops, which is a sign of the commitment of SRDC to support its Scholarship students. SRDC say that 'the future of the Australian sugar industry is dependent on high quality researchers with excellent technical expertise as well as excellent communication and presentation skills.'

**Kylie Anderson** has attended a prior workshop and will also be attending this one. Kylie says that more organisations, including Universities that offer Postgraduate Scholarships, should follow SRDC's lead and lend this type of support to its students. Kylie reports that the first workshop was excellent, and reckons that the skills learned there helped her win the Inaugural James Cook University Graduate Research School Poster Competition. For her efforts, Kylie won a trip to Singapore, during which she will present her research findings to JCU Singapore students. A family trip to the zoo and botanical gardens, as well as a Singapore Sling at Raffles is also on the agenda.

**Mosquito-borne Diseases Centre, JCU - Cairns (Luke Rapley)**

The big news from the Mosquito-borne Diseases Centre is that the Bill and Melinda Gates Foundation has agreed to help fund two new mosquito flight cages and an associated insectary at the Cairns campus of James Cook University. This infrastructure will be used on a collaborative project investigating the life-shortening effects of *Wolbachia* in *Aedes aegypti*. Needless to say, such good news was celebrated by the group at **Scott Ritchie's** house with a bottle of good red wine.

With the arrival of the wet season, mosquito field work is now in full swing. Postdoc **Petrina Johnson** is currently conducting a 'mini mark release recapture' experiment to determine how efficient the BG-Sentinel trap is for capturing the dengue vector *Ae. aegypti*. However, it hasn't all been work for Petrina as over the Christmas/New Year period she and two other Queensland entomologists, Drs **Andrew Ridley** and **Mark Shutze,** managed to dodge the rain to complete the Hinchinbrook Island walk. Amongst many highlights of the walk was the landing of a petalurid dragonfly on Mark's head!

Postdoc **Luke Rapley** and MSc Candidate **Sharron Long** are about to conduct a large-scale urban mosquito intervention with the biodegradable lure 'n kill lethal ovitrap to establish whether this new trap can effectively reduce *Ae. aegypti* populations in the suburbs. The group also welcomes two new research assistants, **Michelle Larkman** and **Rebecca Silcock,** who will be involved in the biodegradable lure 'n kill lethal ovitrap intervention.

Kylie ANDERSON

**WESTERN AUSTRALIA**

**WA Museum**

**Shelley Barker** has been concentrating on the taxonomy of the buprestid beetle genus *Cisseis* for which he currently recognizes 113 species.

**Terry Houston** spent much of late spring studying the biology of truffle-hunting geotrupid beetles in the jarrah forest near Perth and later turned his attention to a study of the diet of a flightless trogid beetle with Curtin University student **Jingyu Zhang**.

A welcome visitor to the Entomology Section in November was **Robert Lavigne** from the South Australian Museum. Robert did the Museum a great service by sorting and identifying it's robber fly collection."

**Curtin University of Technology**

Perth has hosted a range of conferences recently, including the international Medecos conference, the Ecological Society of Australia conference and the Rots and Borers of Eucalypts conference, the last of which was organised by the Institute of Foresters.

**Shae Callan** presented papers on our Barrow Island terrestrial invertebrate survey at each of the first two mentioned conferences and **Jonathan Majer** presented a joint paper at the third-mentioned conference with **Norivaldo dos Anjos** (Federal University of Vicosa, Brazil) on borers of eucalypt plantations in Brazil. Jonathan is currently in Brazil where, in addition to having a holiday, he is working on a review article on Brazilian eucalypt borers, in conjunction with Norivaldo dos Anjos.

**Maria Eunice Paula de Souza** has succesfully completed her project on the biodiversity value of pine and eucalypt plantations at Esperance and has now returned to Brazil, where she intends to commence a MSc on eucalypt leaf-feeding beetles.

**University of Western Australia**

**School of Population Health**

Entomological activity at School of Population Health has been quiet over the holiday break - despite this being the peak time for mosquitoes, our two mosquito researchers have been writing full time rather than getting bitten. Congratulations to **Dr Andrew Jardine** whose title is now official; his PhD on soil salinisation and Ross River virus passed with flying colours. Andrew is taking up a scholarship to pursue his studies in infectious disease epidemiology through the Master of Applied Epidemiology programme at ANU. **Philip Weinstein** visited Réunion Island, where he is undertaking collaborative research on risk perception and the response to the Chikungunya virus epidemic transmitted by Aedes albopictus there in 2005-6. The Créole cooking is fantastic and the island is highly recommended as a field site.

**Murdoch University**

**Modika Perera** from the Plant Biotechnology Research Group was a recipient of a Grains Research and Development Corporation (GRDC) Senior Fellowship Award 2008. The title of the project is "Application of recombinant antibodies for field detection of insects and pathogens". This study includes visiting leading laboratories to enable development of specific antibodies to priority pests of grain crops using lateral flow devices. Laboratories to be visited: Kansas State University and Agriculture Research Centre-Hays, Kansas, USA, Onderstepoort Veterinary Institute, Pretoria, Republic of South Africa and Central Science Laboratories, York, UK. Based on the research in progress, initial model will be developed for *Anguina tritici* (wheat seed-gall nematode). The same procedure will then be applied to *Diuraphis noxia* (Russian wheat aphid) biotypes 1- which is an avirulent strain and biotype 2 – a virulent strain categorized by US authorities. Both of these biotypes are regarded as priority quarantine pests for Australia. The Russian wheat aphid is one of the most devastating insect pests that damage grain crops in particular wheat and barley. Modika has been invited to review two international research projects and a international prestigious award related to entomology and mass spectrometry.

A project within the **Cooperative Research Centre for Forestry** is examining the management and restoration of biodiversity in forest remnants within plantations. In Western Australia, the research is being conducted by **Robert Archibald, Treena Burgess, Mike Craig, Chris Howe**

**and Giles Hardy** in bluegum plantations. The sampling of invertebrates by pitfall trapping will be employed to assess remnant condition and to monitor the outcome of management and restoration trials.

Modika PERERA

**NEW SOUTH WALES**

**AQIS Entomology**

Two contractors are assisting AQIS Entomology. Elaine Tou and Jennifer Spinner, who both studied entomology at Sydney University under Dr Sarah Mansfield are assisting with general entomology work in the lab including identification of intercepted specimens, curation of the collection and data basing etc.

**Charles Sturt University**

**Catherine Gitau** joined the group in Orange from the International Centre for Insect Physiology and Ecology in Kenya. She will work as a Postdoctoral Fellow on an ACIAR-funded project investigating the causes of Finschhafen disorder, a mysterious disease that appears to be moving from coconuts (in which it can be devastating) to oil palm. The very limited historical research suggests that a spectacular planthopper (*Zophiuma lobulata*) is involved. Both she and **Geoff Gurr** visited the wilds of Papua New Guinea in December getting to grips with the pathosystem and assessing scope for biological control. Geoff has also visited Oxford, Athens and Lincoln (NZ) in the last few months and is now hoping to moderate his emissions. **Raman** too has been travelling, to give a series of lectures in India, Japan' and Taiwan. **Getachew Ali** completed his Master of Philosophy on the causes and management of Australian lucerne yellows disease, confirming the role of *Orosius orientalis* as a phytoplasma vector but also uncovering tantalising evidence of seed transmission. The group's current PhD students all seen to be mastering exciting new techniques: **Willie Heimoana** using 'DNA barcoding' to analyse gut contents of predators; **David Perovic** labelling arthropods with rubidium to track movement through cotton landscapes; **Sagrario Gamez-Virues** employing HPLC to better understand nectar use by parasitoids and **Kris LeMotte** getting to grips with a Potter tower to assess toxicity of pesticides to candidate greenhouse biological control agents. **Marja Simpson**, the newest PhD student, has hit the ground running with a beautiful data set showing attraction of natural enemies to grapevines treated with synthetic herbivore-induced plant volatiles. Orange campus entomologists are working increasingly closely with colleagues based in Wagga Wagga and the long-term collaboration with NSW Department of Primary Industries is developing as the 'Australian Bio-Protection Initiative'. New projects generated by this include an Australian Nuclear Science and Technology Organisation-funded grant to Geoff Gurr, **Olivia Kvedaras** and **Andrew Jessup** on use of irradiated fruit fly immatures as hosts for parasitoid rearing. **Aaron Simmons** is also leading a new project on grapevine sensory science.

**EMAI**

Parasitology Section

The part-time employment of **Kulan Turton** (Technical Assistant) to help with blowfly rearing provided the opportunity for **Narelle Sales** to contribute to our project to commercialise a laboratory-based test to detect sheep lice on sheep at shearing. **Paul Young** has developed an ELISA-based test that is extremely sensitive and he and Narelle are working at raising the

monoclonal antibodies, purifying lice-specific proteins and streamlining the test for transfer to non-specialist technicians in the Regional Veterinary Laboratory. A pilot program was suspended in late November when several technical problems threw a spanner in the works.

**Garry Levot** has been writing up several pieces of work on sheep blowfly larvae susceptibility to insecticides, effect of spinosad on sheep lice, resistance to benzoylphenyl urea insect growth regulators in sheep lice and the results of field trials with prototype and final designs of the fipronil-treated harbourage for control of small hive beetles in bee hives. Garry was called out twice to assist Hawkesbury council investigate resident claims of excessive flies breeding on a neighbouring poultry farm at Freeman's Reach. Favourable conditions for fly-breeding are probably the only down-side to Sydney's rain of the past couple of months.

Commercial work keeps our finances ticking over but we are hopeful that this situation will improve if a project submission currently before Australian Wool Innovation is funded in 2008.

*EMAI insectary failure.* Over the weekend of the 8-9 December EMAI was exposed to a series of storms that caused temporary power blackouts. One of these blackouts disabled the air-conditioning system in the EMAI research insectary and associated phone line. Without power internal insectary temperatures exceeded 50 degrees and with the phone line inoperable an emergency high temperature warning was not sent. Such high temperatures are lethal to insects and those in the insectary are no exception. **Grant Herron** lost a career's worth of genetically unique reference material. As the material has been collected over such a long period in most instances it can not be replaced.

**University of New England**

**Christopher Carr** is busily identifying Trichogramma specimens for his PhD project (thanks **Dave Murray** for type specimens) and continuing field surveys in Northern NSW (Gunnedah area), from native vegetation, maize, cotton, sorghum, faba bean, plains grass, lucerne, canola, wheat, chickpea and agro-forestry. Glasshouse manipulation experiments are currently being set up.

In the Insect Ecology lab, **Ahmed Eid** has recently started his Masters in Agriculture research project with **Nigel Andrew** assessing fruit fly population dynamics in the New England area. Nigel attended the Entomological Society of America meeting in San Diego and presented two talks, and was impressed by the sheer scale of the annual meeting and the students from the University of Arkansas who won the Linnean Games student quiz-off (amongst some great talks and posters). Nigel also attended the Ecological Society meeting in Perth where **Tom Mooney** presented his recently-submitted honours findings. **Steve Tremont** recently visited the lab to verify **Michelle Yates'** ant voucher collection that she has been collecting from across NW NSW. Michelle will be visiting her co-supervisors **Heloise Gibb** and **Saul Cunningham** at CSIRO Entomology Canberra in late January to develop protocols of measuring ant morphological traits. **Kerri Clarke** and **Katy Bairstow** have begun the summer field collecting season of free-living herbivores, leaf miners and gallers off *Acacia* species along a climatic gradient. **Matt Binns** has begun his honours research this year, also working on the *Acacia* herbivore project. Finally, Nigel made a quick stop into the Tamworth Agricultural Institute in early January to visit **Adrian Nicholas, Robin Gunning** and **Tanya Joffe** to chat about potential collaborations and the joys of living in NW NSW!

Stephen Fellenberg has been running Insektus for about 16 yrs, he conducts presentations & workshops taking live insects and spiders to all levels of the education system, he also caters to any interested group, eg libraries social groups etc and birthday parties. His aim is to educate as many people as possible to the delights and necessity of the insect world.

Stephen is also involved in the breeding program of the Long Lost Stick Insect, aka the Lord Howe Island Phasmid, to date he is the only person in NSW who is doing this. He recently started up Friends of the long lost Phasmid (a registered non profit organisation and charity), his aim is to raise money to help with research, so the long time goal of reintroducing them back onto the island can be realised. The Friends meet once a month, **Everyone is Welcome**, the next meeting is on the 16th February 2008 at 2 pm at the Campbelltown Arts Centre. He would like to encourage as many as possible to become members of the friends and help this worthy cause.

All these years he has been doing all the work himself and also funding the project from his own pocket, this is proving to be a real problem owing to the current economic climate, and as you will be aware getting funding is very difficult. The website is www.insektus.com

Debbie KENT

**NSW DPI**

Katrina Coutts has recently moved from working with Adrian Nicholas in Tamworth to the Gosford Horticultural Institute on the Central Coast of NSW. She will continue working within entomology with Leigh Pilkington and be involved in developing Integrated Pest Management strategies in a number of different vegetable crops.

Leigh PILKINGTON

## *GENERAL INTEREST*

**Bug Blitz – engaging and training a new generation of entomologists**

Created by renowned naturalist and scholar Professor Edward O. Wilson of Harvard University, Bug Blitz seeks to involve local communities, schools and groups in monitoring the health of local environments and to engage them in sustainability initiatives. Based on the principle of rapid biodiversity assessment, Bug Blitz is a hands-on way of determining the diversity of arthropods within an area, giving insight into the health of particular habitat.

The Hugh D. T. Williamson Foundation has been leading the development and delivery of Bug Blitz programs in Australia and internationally in conjunction with the E.O Wilson Foundation. Partners have also included: The Sovereign Hill Museums Association, Museum Victoria and a number of schools in the Gippsland region of Victoria.

The Foundation has engaged environmental education and training experts Gould Group (www.gould.org.au) to develop Bug Blitz curriculum to assist teachers to implement Bug Blitz programs in their own schools and communities. It takes students through a process of researching, collecting and observing bugs, exploring their world and communicating what they have learnt to their school or local community.

An important aspect of the curriculum is the opportunity for professional and amateur scientists and naturalists to be involved in bringing the magic of insects and other arthropods into schools and engaging a new generation of entomologists.

For more information contact:

Martin Carlson (HDT Williamson) martin.carlson@bigpond.com

Mark Boulet (Gould Group) markb@gould.org.au

**Microscope slide preparations**

Entomologists often need to make a slide of a small insect, or a part of a larger insect. There are many available mountants, but the standard water soluble Hoyer's Mountant (Berlese Mountant) is not available commercially and must be prepared personally. Unfortunately, commercially available Gum Arabic is now usually supplied in powder form, and this produces inferior results to the traditional large lumps of gum. An alternative mountant that is available and widely used by entomologists in the USA is known as CMC-10, a water soluble mountant that dries hard and does not need ringing. The mountant is produced in various forms (CMC-9 is non-drying; CMC-9AF and AB include acid fuchsin or analine blue stains). Unfortunately, the products are apparently not stocked by any Australian supplier. Web searches indicate various entomological users of this mountant, but the manufacturer, Masters Company Inc of Illinois, does not have a web site. However, an e-mail enquiry to masterscoinc@aol.com gave me a very helpful response, and a small bottle costing 15$US is proving very useful for slide-mounting thrips during training sessions. I suggest that anyone with similar technical problems might find this mountant is worth investigating.

Laurence MOUND

**Small ants cause big headaches**

As if the drought wasn't enough!

Growers in the Mildura region are striving to maximise their water use efficiency to make the most of this increasingly scarce resource. Carefully controlled drip irrigation is one approach used by many growers, but one such grape grower is having his efforts undone by *Ochetellus glaber*, the ubiquitous black house ant.

Ants enter the built-in drippers and chew on a 'labyrinth' which controls water flow, increasing the flow rate of some drippers by over 400%. In the worst affected area of the vineyard, the overall flow rate increased by 35%, making a mockery of the grower's attempts to manage water accurately.

Despite inquiries since 2000, the real cause of the dripper failure had gone unnoticed. Initially the failure was put down to shrinkage of a rubber diaphragm built into the drippers. In 2003 the grower replaced 114 km of drip line in an attempt to overcome the problem. Within a year, the new drip lines (using silicon diaphragms) started to flood and show signs of internal damage

(Figure 1). The water inlets and diaphragms looked like they were being chewed. The damage however was considered unlikely to cause the flooding, so it was all a bit of a mystery.

Then the grower contacted David Madge who had a close look and found that the dripper labyrinths had been chewed out (Figure 2). This was not obvious from a cursory inspection of the drippers as shown in Figure 3.

The grower is now evaluating a number of approaches to manage the ants.

For more information, contact David through david.madge@dpi.vic.gov.au

David MADGE

**FOR SALE OR SWAP**

I am contacting you for the purpose of inquiring if any of your members are interested in purchasing some Butterfly books that I have. I wish to sell these and use the money to purchase books on birds. The books I have for sale are all by Bernard De'Abrera,

Butterflies of the Australian Region

Butterflies of the Afrotropical Region, and

Birdwing Butterflies of the World

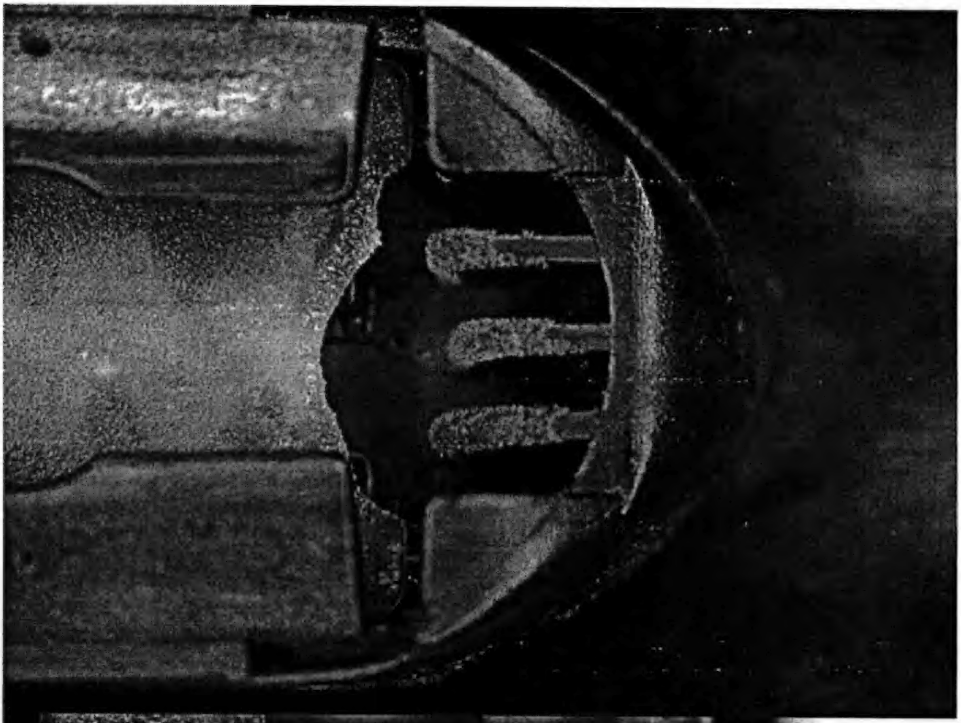
I have an idea of the approximate prices of the books from Amazon.com etc. However I am happy to exchange/swap these for equivalent value in bird books in good condition. Am interested mainly in "field guides" to birds of other countries but would consider other types of bird books. I can be contacted on gjlgff@bigpond.net.au

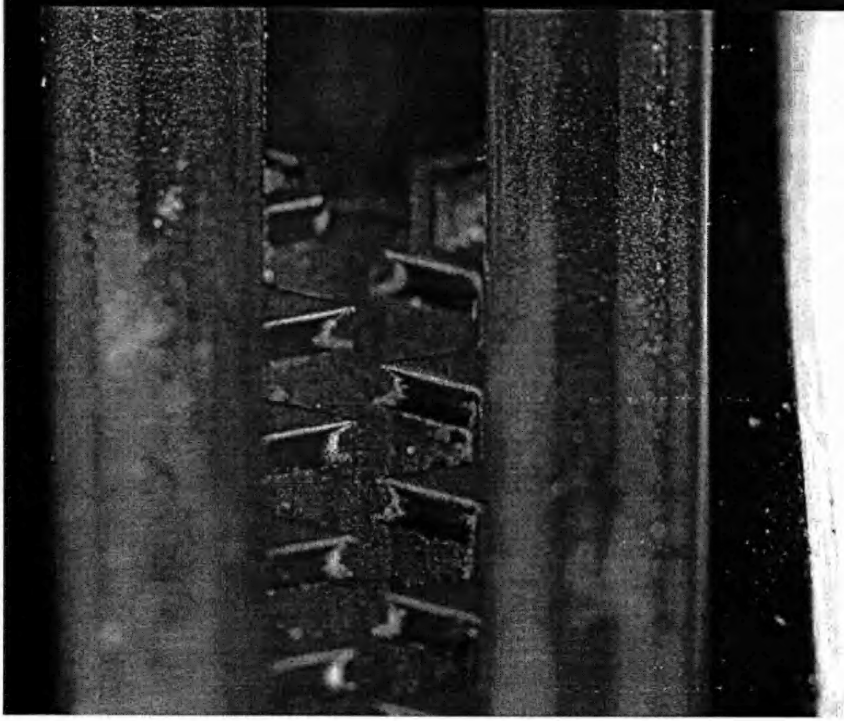
Greg LITTLE

## *MEMBERSHIP NOMINATION FORM*

To obtain a nomination form, please download from http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/aesmemform.pdf.

Next page : Pictures showing dripper internals chewed by ants





# *OBITUARY*

**DEATH OF RAY KUMAR**

We are sad to report the death in Shreveport, Louisiana, USA, of our long-time friend Dr Rajinder ("Ray") Kumar on the 22nd of August 2007, after a long battle with brain cancer. Ray was a member of the Society for more than 40 years and was well known to many members throughout his long and distinguished career in many parts of the world. After completing his first PhD at the University of Rajahsthan, he came to undertake a second doctorate on hemipteran morphology at the University of Queensland under the tutelage of Dr Tom Woodward in the early 1960s. It was here that he built up strong ties with Australian entomologists, including one of us (GM), who he shared a laboratory with him.

From there, he went to a university post at the University of Ghana, Legon. It was here that I (JM) first met him, when undertaking my own doctoral studies. Ray shared entomological responsibilities with another noted hemipterist, Dennis Leston, so the University reached a fair degree of prominence in the entomological literature. Ray trained a number of Ghanaians at the graduate level, which lead to their gaining key positions within the country. I will always remember Ray for his hospitality, enthusiasm for his subject and his great professional adaptability to the ever-changing political regimes in the Country. He eventually moved to the University of Port Harcourt in Rivers State, Nigeria, some years later when conditions in Ghana deteriorated. From there he moved to Papua New Guinea in the late 1980s, initially with the Agriculture Department, then later moving back to academia at the University of Papua New Guinea where he trained scores of students in tropical agricultural entomology, always with a good foundation of pure science. This culminated in Ray publishing the milestone book *Insect Pests of Agriculture in Papua New Guinea*. At the end of this phase of his career Ray had published 140 papers, 90 of which were in peer reviewed journals. Right up until the time that he left Papua New Guinea, Ray had been the PNG correspondent for *Myrmecia*.

He retired about 5 years ago, first going to suburban Las Vegas and later to Shreveport where he renewed teaching, this time to nursing students. Ray must have made a smooth transition to this topic, as he was included amongst the top 150 college teachers in the United States. Even in the States, he maintained contact with us, only recently making joint plans to write a review of the biogeographic features of insect pests in PNG. Sadly, this work was not completed. Ray leaves his wife Dorcy and sons, Sunil and Fifi, to whom we extend our deepest sympathies.

Geoff MONTIETH and Jonathan MAJER

# *EMPLOYMENT OPPORTUNITY*

**College of Health and Science**

**School of Natural Sciences**

**Lecturer/Senior Lecturer in Applied Entomology**

**Hawkesbury Campus**

**Continuing Position**

Remuneration Package: Academic Level B $82,851 to $97,765 p.a.; Academic Level C $100,725 to $115,541 p.a. (comprising Salary Level B $70,010 to $82,670 p.a./Level C $85,200 to $97,863 p.a., 17% Superannuation and Leave Loading)

**Ref No. 70323**

The School of Natural Sciences at the University of Western Sydney is one of six schools within the College of Health and Science. Our school is educating tomorrow's graduates in an environment that is contemporary, challenging, and adapted to a rapidly evolving world. Our programs embrace a range of innovative approaches to teaching, often in partnership with external organisations, and are designed to equip our graduates with a passion for life long learning. The school's teaching and research programs are intrinsically inter disciplinary, and embrace:

- Agriculture and horticulture, including significant research strengths in plants, soils and environment, and sustainable plant production;
- Animal science;
- Environmental health, management and science;
- Food, nutrition and biotechnology;
- Biological and chemical sciences;
- Medical science;
- Forensic science

We seek a forward thinking and innovative scholar to take on the role of Lecturer (Level B) or Senior Lecturer (Level C) in the field of applied entomology. The appointee will be based at the Hawkesbury Campus of UWS, but multi-campus teaching may be required.

The successful applicant must have PhD and will be expected to be involved in a range of academic activities including the coordination and teaching of units in Plant Protection, Invertebrate Biology and related areas within programs across the school. The appointee will be expected to conduct applied entomology research relevant to the 'Sustainable Plant Production' theme of the Centre for Plant and Food Science (PAFS) and supervise undergraduate and postgraduate student projects in their area of expertise.

Suitably qualified applicants may be required to take on leadership roles within their discipline areas.

For a position description or information on how to apply, please visit our website at http://pubapps.uws.edu.au/vacancies/

Position Enquiries: Professor John Bartlett, (02) 4570 1438.

Closing Date: 15 February 2008

# *THE AUSTENTSOC SHOP*

The store room must be emptied. This is your last chance for these garments at close-out sale prices !

| | | |
|---|---|---|
| Polo shirts | $25 | now ***$8 including postage**** |
| Collared Sweatshirts | $40 | now ***$10 including postage**** |

Sizes (men's): S, M, L, XL, 2XL, 3XL, 4XL 5XL (the fit is generous). Small is approx a women's size 12; L approx 16-18.

3 designs (over page)

| | |
|---|---|
| Honey pot ant (*Melophorus bagoti*) | One embroidered honeypot ant on front of garment |
| Ant trails | Two embroidered ant trails on front of garment |
| Mitchell's diurnal cockroach (*Polyzosteria mitchelli*) | 4 cockroaches embroidered on the front and back of the garment |

***Photographs of all merchandise can be viewed at the society's website.*** http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/shop.htm

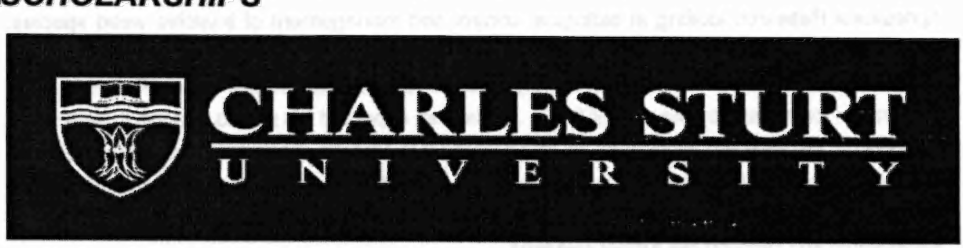
Postage & Handling

***Within Australia***

For overseas or more complex orders, please send an enquiry to jane.wright@csiro.au and she'll come back to you within several days on a price.

Order Forms
An order/tax invoice form can be downloaded from the society's website. Send your orders to Jane Wright by fax on (02) 6246 4094, email to jane.wright@csiro.au or mail to CSIRO Entomology, GPO Box 1700, Canberra, ACT 2601.

## SCHOLARSHIPS




**Honours and PhD vacancies in ecology and sustainable agriculture**

Several openings are available for students to join a dynamic research group and work on the following projects:

- Novel biological control solutions for fruit flies (PhD)
- Biosecurity risk assessment (PhD)
- Sensory science in grape growing and wine making (PhD)
- Organic vineyard establishment (Hons)
- Chemical ecology of insect-plant interactions (Hons)
- Peaceful use of radiation for the environment (sterile insect) (Hons)
- Mine site rehabilitation (2 x Hons)

Projects commence early or mid 2008, are based in Orange, Gosford and Wagga Wagga and will afford the opportunity to collaborate with various partner organisations including ANSTO, Cadia Valley Gold Mine and NSW DPI.

For more information contact Professor Geoff Gurr: (02) 6365 7551 / ggurr@csu.edu.au

## NEW MEMBERS

We welcome the following new members.

Elected 19 July 2007

**Dr Stephen Cameron** is based at the Australian National Insect Collection (ANIC) molecular systematics laboratory at CSIRO Canberra. He was awarded his PhD by the University of Queensland in 2001. Stephen's photo and an introduction to some of his current projects appeared on page 17 of the August 2007 issue of Myrmecia. He was elected as a Full Member of the AES.

**Dr Darren Peck** is also with the ANIC and was elected as a Full Member of the Society. Despite his long-term interest in entomology, he completed his PhD by examining the foraging ecology of seabirds. One of his more exotic pursuits was to document invertebrate diversity on French-owned islands in the western Indian Ocean. He also did some work in far north Queensland with the Bureau of Sugar Experimental Stations. These last two assignments rekindled his interest in insects and applied entomology and he is now developing a remote diagnostic facility at ANIC. This is expected to aid the identification of insects intercepted by the Australian Quarantine Inspection Service.

Elected 17 September 2007

**Dr Jamie Davies** completed his postgraduate studies through the Tasmanian Institute of Agricultural Research looking at biological control and management of invasive weed species. He moved to Victoria to join Tom Morley at the Department of Primary Industries' Frankston Quarantine Lab. They have been rearing the boneseed leaf buckle mite (*Aceria* sp.) in preparation for release by the end of 2007. Jamie then expected his role to change to field work, releasing of the mite and monitoring its establishment in Victoria, Tasmania and South Australia in conjunction with interstate partners. He is also involved with the gorse biological control project, monitoring the establishment of previous releases of the gorse thrips (*Sericothrips staphylinus*) and carrying out further releases.

**Sasha Voss** completed her BSc (Environmental Science) degree and Zoology Honours in the late 1990s and is currently enrolled in a combined Master of Forensic Science / PhD (Forensic Science) degree at the University of Western Australia. Her research project is investigating Hymenopteran parasitoids as forensic indicators of time since death. Sasha was elected as an AES Student Member.

Elected 10 October 2007

**Philip Barton** rejoined the Society as a Student Member after a few years off. He is at the Australian National University, Canberra. Philip describes his entomological interests as "broad". They include insect ecology, medical entomology, parasitology, beetles and insect conservation. The Society Conservation Committee should take special note of this last-mentioned interest!

**Catherine Mathenge** came to Australia from South Africa having previously worked at the Plant Protection Research Institute, Pretoria. Her main area of entomological interest is biological control of insect and weed pests using environmentally friendly methods. She has also worked with the FAO in phytosanitary matters and as a consultant for the International Plant Protection Convention (UNFAO) to help developing countries comply with international phytosanitary standards. Catherine was elected as a Student Member and is enrolled as a PhD student at the University of Western Sydney pursuing research in biological control of weeds using insects.

Elected 8 November 2007

**Cathy Car** undertook an entomology degree many years ago in South Africa and shortly afterwards held entomological posts in both the Zimbabwe National Museum and the South African Museum, where she became very interested in spiders. After a break of 20 years and a change of continents, in 2005 she completed a Master of Applied Science degree through Charles Sturt University, Wagga Wagga, NSW. In that study she looked at spider assemblages associated with woodland understoreys. She is now working on the taxonomy and biogeography of polydesmid millipedes for her PhD. In summary, Cathy dabbles in the taxonomy of sundry terrestrial invertebrate groups! She was elected as a Student Member.

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1988 Dr T.R. New
1990 Dr R.A.I. Drew
1992 Dr E.S. Nielsen
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2000 Dr P.G. Allsopp
2002 Dr G.P. Fitt
2004 Prof. A. Hoffman

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